

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1.-11. (Canceled)
12. (Original) An isolated polypeptide comprising an alpha subunit of a Kv10 potassium channel, the polypeptide:
 - (i) forming, with at least one additional Kv alpha subunit, a Kv potassium channel having the characteristic of voltage-gating; and
 - (ii) comprising a subsequence having at least 60% amino acid sequence identity to amino acids 102 to 514 of SEQ ID NO:3.
13. (Original) The polypeptide of claim 12, wherein the polypeptide specifically binds to antibodies generated against SEQ ID NO:3.
14. (Original) The polypeptide of claim 12, wherein the polypeptide has a molecular weight of between about 58 kD to about 68 kD.
15. (Original) The polypeptide of claim 12, wherein the polypeptide has an amino acid sequence of human Kv10.1.
16. (Original) The polypeptide of claim 12, wherein the polypeptide has an amino acid sequence of SEQ ID NO:3.
17. (Original) The polypeptide of claim 12, wherein the polypeptide comprises an alpha subunit of a homomeric potassium channel.
18. (Original) The polypeptide of claim 12, wherein the polypeptide encoded by the nucleic acid comprises an alpha subunit of a heteromeric potassium channel.
- 19.-38. (Canceled)